NSF DATA MANAGEMENT PLAN TEMPLATE
For Use by CSU Faculty and Researchers

For questions about the information below, email library_data@colostate.edu

1. **Types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project.**

   - Describe data sets and other materials generated in detail.
   - Estimate how much data will be produced.
   - Note whether sensitive/private data will be produced.

Sample text:

This project will generate <u>___<list the types of data>___</u>. To supplement these data, <u>___<list other materials generated>___</u> during the course of the project. In total, these materials will occupy <u>_<estimate how big each file will be and sum for all files>_</u> TB worth of space. These data do/do not (pick one) contain sensitive information.

2. **The standards to be used for data and metadata format and content. Indicate any proposed solutions or remedies if existing standards are absent or deemed inadequate.**

   - Identify the format in which the data will be stored
   - Identify the type(s) of metadata that will be included.
     - Use discipline-specific standards if available (See http://www.dcc.ac.uk/resources/metadata-standards/)
     - Use the Dublin Core metadata standard if standards are not available/adequate

Sample text:
The samples will be stored in non-proprietary formats (<list formats here>) to ensure accessibility of the data long term. According to best practices in <list discipline>, the data will be described using < list metadata standard >.

OR

The samples will be stored in non-proprietary formats (<list formats here>) to ensure accessibility of the data long term. Metadata standards in <list discipline> are not well developed, so the data will be described using the Dublin Core Metadata standard as used by the library and information science community.

3. **Policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements.**

- Describe the specifics of how you will provide access to the data.,
- Describe how private/sensitive data will be anonymized (deidentified) if applicable
- Specify an embargo period on public access (if necessary)

Sample text:

The availability of the data sets will be communicated to research peers and at conferences, and referenced in publications. The embargo period for the data sets restricting public access will be for <mark><list embargo period></mark> and will be implemented in CSU's Digital Repository. Afterward, materials will be made available via persistent URLs configured for discovery by all major web crawlers.

4. **Policies and provisions for re-use, re-distribution, and the production of derivatives.**

- Identify any potential limitations on the data requestor's ability to re-use or re-distribute the data or materials.
- Citation of the data set or associated manuscripts are a common condition
- Limitations for reuse can be due to the presence of sensitive data
- Data reuse can also be limited by some of the data collected for the project having placed limitations on the re-distribution of those data and materials.

Sample text:

The policies for reuse of the data are __<list provisions for reuse>__, and will be implemented and codified at the time the materials are deposited in the CSU Digital Repository. The PI(s) will specify conditions for data use and attribution in the specific Creative Commons license they select (http://creativecommons.org/).

5. **Plans for archiving data, samples, and other research products, and for preservation of/access to them.**

- Identify how the data and materials will be stored
- Explain how the data can be accessed by others (sharing)

Sample text:

For datasets <=1 TB

The data and related materials will be stored and preserved in CSU's open access digital institutional repository, a service jointly provided, operated, and managed by the CSU Libraries and the Department of Academic Computing and Networking Services. Because the total materials are <=1 TB in size, they will be stored, preserved, and made accessible at no cost to the project. The PI(s) will evaluate, distill, and select the data for preservation, and supply traditional and contextual metadata that will be reviewed and augmented as appropriate by librarians who are experts in digital repositories, including data and metadata organization and management. The CSU Digital Repository provides an exceptionally high-quality environment for data discovery, accessibility, transmissibility, and preservation. The CSU Libraries faculty and staff are experts in operating, managing, and sustaining digital data in formal repositories, possessing experience with multiple metadata schemes, harvesting of metadata and crawling of digital objects, digital rights management, and preservation.

For datasets >1 TB

The data and related materials will be stored and preserved in CSU's open access digital institutional repository, a service jointly provided, operated, and managed by the CSU Libraries and the Department of Academic Computing and Networking Services. Because the total materials are >1 TB in size, they will be stored, preserved, and made accessible at a rate of $150/TB for 5 years or $300/TB for longer than 5 years which is included as an incidental, direct cost in the project budget. The PI(s) will evaluate, distill, and select the data for preservation, and supply traditional and contextual metadata that will be reviewed and augmented as appropriate by librarians who are experts in digital repositories, including data and metadata organization and management. The CSU Digital Repository provides an exceptionally high-quality environment for data discovery, accessibility, transmissibility, and preservation. The CSU Libraries faculty and staff are experts in operating, managing, and sustaining digital data in formal repositories, possessing experience with multiple metadata schemes, harvesting of metadata and crawling of digital objects, digital rights management, and preservation.